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## Patent Abstracts of Japan

PUBLICATION NUMBER : 11311746  
PUBLICATION DATE : 09-11-99

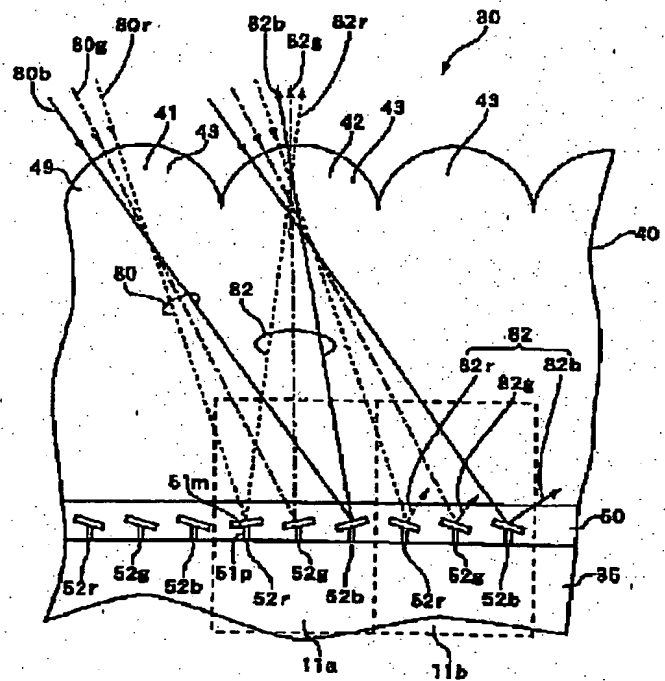
APPLICATION DATE : 30-04-98  
APPLICATION NUMBER : 10121339

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INT.CL. : G02B 26/08 G09F 9/00 G09F 9/37

TITLE : OPTICAL SWITCHING DEVICE AND  
IMAGE DISPLAY DEVICE



**ABSTRACT :** PROBLEM TO BE SOLVED: To provide an optical switching device capable of actualizing a compact image display device which has high light use efficiency and can displays a light and sharp color image.

**SOLUTION:** The optical switching device 30 is constituted by stacking a microlens array 40 having microlens units 43 on an optical switching element array 50 having micromirror elements 52 and arranging the micromirror elements 52r and 52g so that each of them corresponds to one microlens unit 43. Luminous flux 80 which is made incident on an incidence-side microlens unit 41 and slightly different in angle for each of the primary colors is converted on the corresponding micromirror element 52 and projection light 82 is projected on the exit-side microlens unit 42. Therefore, color-separated light can be controlled by a single plate and the light loss due to a color filter and temporal light loss at the time of time division are eliminated to provide an optical switching device which can display a light color image.

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